

What is Claimed:

1. A material comprising epitaxial titanate formed as a layer on a sapphire substrate.
2. The material according to Claim 1 wherein said layer is formed on the C-plane of said sapphire substrate.
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3. The material of Claim 1 wherein said titanate contains barium and strontium.
4. The material of claim 1 wherein said layer is between about 100 and about 3000 nanometers thick.
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5. The material of claim 1 wherein said layer is between about 300 and about 1000 nanometers thick.
6. The material of claim 1 wherein said titanate has a 111 orientation.
7. The material of Claim 1 wherein said titanate is doped with an ion or ions that change its properties.
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8. The material of Claim 7 wherein said doping ions comprise cesium and bismuth.
9. The material of claim 1 further comprising conductive electrodes for applying a bias or RF signal to the titanate layer.